Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for supporting a handoff of a mobile node from a first agent of a first network to a second agent of a second network ,the method comprising the steps of:

   upon initiation of the handoff, sending a first message to the first agent requesting the first agent to buffer any packets being sent to the mobile node;

   completing the handoff to the second agent; and

   sending a second message to the first agent requesting the first agent to forward the buffered packets to the second agent.

2. (Original) The method of claim 1 wherein the first message is part of a registration request protocol to the second agent.

3. (Original) The method of claim 2 wherein the second message is also part of the registration request protocol, occurring after the second agent has been authorized.

4. (Original) The method of claim 1 wherein the first and second networks are mobile internet protocol networks.

5. (Original) The method of claim 4 wherein the second agent is a foreign agent to the mobile node.

6. (Original) The method of claim 1 wherein the mobile node sends the first message to the first agent.

7.   (Amended) ~~The method of claim 1 wherein~~ A method for supporting a handoff of a mobile node from a first agent of a first network to a second agent of a second network ,the method comprising the steps of:

upon initiation of the handoff, the second agent ~~sends the~~ sending a first message to the first agent requesting the first agent to buffer any packets being sent to the mobile node;

completing the handoff to the second agent; and

sending a second message to the first agent requesting the first agent to forward the buffered packets to the second agent.

8.   (Amended) A software program for facilitating a handoff of a mobile node from a first agent to a second agent, the software program comprising instructions for:

determining that the handoff is to be initiated;

before a transmission of a handoff request message, sending a first message to the first agent requesting the first agent to buffer any packets being sent to the mobile node;

completing the handoff to the second agent; and

signaling the first agent to forward the buffered packets to the second agent.

9.   (Original) The software program of claim 8 wherein the first message is part of a registration request protocol to the second agent.

10.   (Original) The software program of claim 9 wherein the second message is also part of the registration request protocol, occurring after the second agent has been authorized.

11.   (Original) The software program of claim 8 wherein the first and second networks are mobile internet protocol (IP) networks.

12.   (Original) The software program of claim 11 wherein the second agent is a foreign agent to the mobile node.

13.   (Original) The software program of claim 8 wherein the second agent sends the first message to the first agent.

14.   (Original) The software program of claim 8 further comprising
sending, by the mobile node, a buffer control request.

15.   (Original) The software program of claim 15 further comprising
sending an indicator to the second agent that the mobile node has requested buffering.

16.   (Original) The software program of claim 8 wherein the first message includes an indicator of a buffer size.

17.   (Original) The software program of claim 8 further comprising:
discarding, by the first agent, predetermined packets when a maximum number of packets have been received.

18.   (Original) The software program of claim 8 further comprising:
signaling the first agent to delete the buffered packets.

19.   (Original) The software program of claim 18 further comprising:
signaling forwarding any packets received after the buffered packets are deleted.

20.   (Original) The software program of claim 8 wherein the first message includes an indicator of a maximum length of time that buffering is needed.

21.   (Original) The software program of claim 8 wherein the first message includes an indicator of authenticity for the buffering.

22.   (Original) The software program of claim 11 wherein the first message includes an IP filter to identify certain packets that do not need to be buffered.

23.   (Original) A software program for a new agent of a new network to initiate communication with a mobile node, the software program comprising instructions for:

       determining that the mobile node is in handoff;

       sending a first message to the old agent requesting the old agent to buffer any packets being sent to the mobile node;

       completing the handoff of the mobile node; and

       signaling the old agent to forward the buffered packets to the new agent.

24.   (Original) The software program of claim 23 wherein the old and new networks are mobile internet protocol networks.

25.   (Original) The software program of claim 23 wherein the new agent is a foreign agent to the mobile node.

26.   (Original) The software program of claim 23 wherein the first message is sent by the mobile node.

27.   (Original) The software program of claim 23 wherein the new agent sends the first message to the old agent.

28.   (Amended) A system for supporting a handoff of a mobile node from a first agent of a first network to a second agent of a second network ,the system comprising:

       means for sending, <u>before a transmission of a handoff request message</u> ~~upon initiation of the handoff~~, a first message to the first agent requesting the first agent to buffer any packets being sent to the mobile node;

       means for completing the handoff to the second agent; and

means for sending a second message to the first agent requesting the first agent to forward the buffered packets to the second agent.

29.   (New) The method of Claim 7 wherein the first message is part of a registration request protocol to the second agent.

30.   (New) The method of Claim 29 wherein the second message is also part of the registration request protocol, occurring after the second agent has been authorized.

31.   (New) A software program for facilitating a handoff of a mobile node from a first agent to a second agent, the software program comprising instructions for:

determining that the handoff is to be initiated;

the second agent sending a first message to the first agent requesting the first agent to buffer any packets being sent to the mobile node;

completing the handoff to the second agent; and

signaling the first agent to forward the buffered packets to the second agent.

32.   (New) The software program of Claim 31 wherein the first message is part of a registration request protocol to the second agent.

33.   (New) The software program of Claim 32 wherein the second message is also part of the registration request protocol, occurring after the second agent has been authorized.